ISS and Human Research Project Office Highlights
May 21, 2010

ISS Research Program

SAME-R hardware launched to ISS on board Atlantis shuttle.

The Smoke Aerosol Measurement Experiment-Reflight (SAME-R) hardware was launched to ISS aboard Atlantis on May 14, 2010.
(POC: MAH/J. Mark Hickman, (216) 977-7105)

Math and Science Week at Cedar Point off to a great start!

May 17-21, 2010 is Math & Science Week at the Cedar Point Amusement Park, and NASA Glenn is a major participant in this educational outreach to students, teachers, and the general public who come from Ohio, Michigan, and beyond. Nancy R. Hall/MAH again coordinated this center-wide event and various organizations selected a day to highlight their projects or programs.

On Monday, May 17, 2010 the theme was Aeronautics and was led by Mary Jo Long Davis/RTE. Hands-on activities included testing of various models (e.g., rockets, airplanes, and baseballs) in a portable wind tunnel and a paper airplane challenge in which students were shown how to fold two different airplane designs and challenged to throw them through a target. *Orville and Wilbur Wright* was at the park and explained to the students the fundamentals of flight through the use numerous model airplanes brought for display. On Tuesday, May 18, 2010, *Microgravity Man* and his friends conducted microgravity demonstrations on the midway utilizing the reduced gravity demonstrator and other simple devices. This effort was led by Dennis Stocker/REC. Due to the weather on Monday and Tuesday, the "Picture Yourself In Space" photobooth, and the Space Trivia Game were placed inside the Ballroom at Cedar Point along with several kiosks and other NASA exhibits that were on display. On Wednesday, May 18, 2010 the theme was Science Missions and a vacuum test utilizing bell jars and a rocket experiments using alcohol were demonstrated. The NASA moon rock was also present for students and the public to view. The Science Missions' activities were led by Larry Liou/MAS and Kristin Jansen/QuinteQ. Great Lakes Science Center was also present on Monday and Wednesday highlighting their activities.

For Thursday, May 19, the theme will be Education and will include activities from the Educational Program Office, NASA's Central Operation of Resources for Educators (CORE) and two FIRST Robotics teams. On Friday, May 20th, NASA Plumbrook Station will highlight the work being done at that facility and astronaut Mike Foreman will be at the Park to give a talk.
(POC: MAH/Nancy Rabel Hall, (216) 433-5643)

Human Research Program

Glenn ECP Project Manager speaks before ASM International.

Gail Perusek, Exercise Countermeasures Project (ECP) Project Manager, was the invited speaker for ASM (American Society of Metals) International, Cleveland Chapter on May 10, 2010. The presentation was entitled "Exercising in Space: A Dynamic Research Problem—Overview of

the Exercise Countermeasures Project for NASA's Human Research Program." The presentation highlighted work being done at NASA's Glenn Research center including an on-orbit investigation to develop more comfortable crew equipment for the International Space Station treadmills, ground simulations of microgravity and lunar locomotion and Extravehicular Activity, and Advanced Exercise Concepts for the new Lunar Electric Rover prototype. Exercise is performed in space to help mitigate the detrimental physiological effects of spaceflight, including bone loss, muscle atrophy, and cardiovascular deconditioning. (POC: MAH/Gail P. Perusek, (216) 433-8729)

Cleveland Clinic Center for Space Medicine Lecturer visits GRC.
Dr. Thomas Lang of the University of California San Francisco Department of Radiology presented "Hip Strength in Spaceflight and Aging" as a part of the Cleveland Clinic Center for Space Medicine "Current Topics in Space Medicine" Lecture Series on Tuesday May 11, 2010 at the Lerner Research Institute of the Cleveland Clinic. Dr. Lang's core interest is the use of quantitative computed technology and other clinically available imaging modalities in the study of human musculoskeletal biology. He is also the leader of the Musculoskeletal Alterations Team at the National Space Biomedical Research Institute (NSBRI) where he coordinates a research team of investigators from eight institutions. Prior to his lecture, Dr. Lang visited Glenn Research Center (GRC) and ZIN Technologies to meet with representatives of the Human Research Program and to tour facilities. (POC: MAH/Marsha Nall, (216) 433-5374)